

## Association for Information Systems AIS Electronic Library (AISeL)

---

AMCIS 2001 Proceedings

Americas Conference on Information Systems  
(AMCIS)

---

December 2001

# Dealing with Consolidation and Virtual Banks: An Exploration of Internet Banking in the "Bricks and Mortar" Sector

Philip O.Reill  
*University College Cork*

Patrick Finnegan  
*University College Cork*

Colin McCormack  
*University College Cork*

Follow this and additional works at: <http://aisel.aisnet.org/amcis2001>

---

### Recommended Citation

O.Reill, Philip; Finnegan, Patrick; and McCormack, Colin, "Dealing with Consolidation and Virtual Banks: An Exploration of Internet Banking in the "Bricks and Mortar" Sector" (2001). *AMCIS 2001 Proceedings*. 145.  
<http://aisel.aisnet.org/amcis2001/145>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2001 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

# DEALING WITH CONSOLIDATION AND VIRTUAL BANKS: AN EXPLORATION OF INTERNET BANKING IN THE “BRICKS AND MORTAR” SECTOR

**Philip O'Reilly**

Business Information Systems  
Department  
University College Cork  
Philip.OReilly@ucc.ie

**Pat Finnegan**

Business Information Systems  
Department  
University College Cork  
Pfinnegan@afis.ucc.ie

**Colin McCormack**

Business Information Systems  
Department  
University College Cork  
cmc@ucc.ie

## Abstract

*Since 1995, Internet banking has allowed consumers to utilize the Internet as a platform to interact with their bank. This study examined Internet banking strategy in the face of consolidation in the financial services sector and difficulties evaluating Internet banking offerings. The research was conducted in the United States, utilizing a field study as the research method. The study found that the banks studied are at different stages in relation to Internet banking. With industry deregulation, a growing threat exists to traditional banks business from not only financial services companies but from new organisational forms such as virtual banks. Internet banking is seen as a valuable competitive tool for 'bricks and mortar' banks.*

## Introduction

Internet Banking is the concept of conducting one's banking transactions over the Internet. On the 18<sup>th</sup> of October 1995, Internet banking was born when the world's first virtual bank, Security First Network Bank (WWW.SFNB.COM) became the first institution to carry out a transaction online. Among researchers there appears to be widespread agreement that the Internet as a delivery channel will have widespread impact on banking (Johnson et al, 1995; Cronin, 1997; Graham, 1997; McChesney, 1997; Treanor, 1997) with estimates that 60% of retail banking transactions will be online within ten years (Daniel, 1999). Internet banking has evolved to the situation whereby most banking institutions are utilizing the Internet as a tool to facilitate interaction with their customers (Daniel, 1999; Deupree and Berini jr, 1998).

When the Internet became a delivery channel for banking in 1995, it was mainly the needs of retail customers that were targeted, providing such customers with limited information and functionality. However, customers' needs changed and soon retail customers were able to carry out more and more functions online. The needs and expectations of other customer segments began to evolve and in recent times researchers (Sackenheim, 1999; Yerkes, 1999) have identified the growth in cash management business and the demand from commercial customers that the Internet be utilized as a medium to meet their needs.

This paper evaluates Internet banking from the perspective of four 'bricks and mortar' banks in the north eastern region of the United States. This evaluation is undertaken in the context of consolidation and regulatory reform in the financial services sector. The authors conclude that banks may use Internet banking as a tool to compete by becoming premier destination sites or 'portals' that offer personalized products and services. However, it will be necessary to have much more advanced Internet banking applications than currently envisaged.

## Dimensions of Internet Banking

Researchers argue that banks face a number of strategic decisions in choosing their distribution channel for banking services (Greenland, 1994; Mols, 1998). Initial research undertaken to ascertain the reason for banks using the Internet as a platform for customer interaction revealed that banks saw it as an offensive tool; part of a strategy to be seen as a market leader while

increasing their customer base (Pariser & Zimmerman, 1996). More recent research reveals that banks utilize Internet banking as a defensive strategy to satisfy the growing number of affluent customers who want and expect this service from their banks (Gervino; 2000). However, researchers such as Proctor (2000) and Robinson (2000) claim that utilisation of Internet banking is not widespread with the number of customers online as a percentage of overall customers being quite low.

Once a bank decides on the strategy that it is to follow, the next step is to define a strategy in relation to its Web site adoption (Deupree & Berini JR, 1998). Deupree and Berini JR (1998) document four possible phases that banks may go through in adopting Internet banking:

- The creation of the Web site;
- A transactional phase, in which customers can perform basic banking operations;
- A relationship orientation, whereby the bank can do targeted marketing to classes of individuals;
- One-to-one banking, in which personal Web pages for individual customers can be created dynamically.

Many firms, concerned about falling behind on the technology curve, engage in IT investments without deriving any benefits from IT (Nolan, 1994). IT capabilities were found to be an important differential of banks that were doing well in the mid-1980's as compared to those who were less profitable (Nolan, 1994; Bharadwaj, 2000). A bank's Internet offering is an IT investment (Deupree & Berini jr, 1998). While much evidence (Booz-Allen-Hamilton, 1996; Daniel & Storey 1997; OCC, 1999) suggests that Internet banking is a success in relation to cost savings, the full aspect of Internet banking as a strategic and operational tool needs to be evaluated.

Future Internet banking strategies will be influenced by the disintermediation of traditional financial services roles (Deupree & Berini jr, 1998). Regulatory reform in the United States now allows financial holding companies to engage in a wide range of financial activities. In the United States, 12,000 separate banking institutions existed in 1980 but by 1995 this figure had been reduced dramatically to 8,000 (Cronin, 1997). The threat posed by entities such as [www.yahoo.com](http://www.yahoo.com) and [www.aol.com](http://www.aol.com) can be seen by recent take-over and merger activity (Cha & Goodman, 2000). In the context of these developments it will be interesting to see how banking strategies view Internet banking as a competitive weapon.

## Research Framework

The objective of this research is to investigate how banks evaluate their Internet banking strategy and operations in light of changing competitive conditions in the financial services sector. Marshall and Rossman (1989) state that during the initial stages of exploratory research, qualitative research is normally used. Field studies are considered appropriate if the researcher enters the field with a good idea of the research questions to be addressed and the manner in which the data will be collected and analyzed (Buckley et al; 1976). It is important to make a distinction between the two distinct field study methods. On the one hand, a hard view of the field study casts it as a method which exhibits some of the rigour of experimental design, albeit with more freedom in that no attempt is made to control any independent variables during the study, but dependent variables are systematically measured (Buckley et al, 1976; Van Horn, 1973). On the other hand, field studies have also been viewed as field-oriented, cross-sectional case studies which consist mainly of qualitative, anecdotal observations and which also allow researcher ratings to be included (Kaplan, 1986; McGrath, 1979; Toraskar, 1991). In this latter interpretation, the field study method focuses on collecting data from a number of sites. Thus it is a method which is well suited to exploring a particular research area to gain a broad understanding of current practices. It has the advantage of the rich anecdotal information of the case study but is collected from several sites. As the purpose of this paper is to gain a broad understanding of Internet banking practices, this is the research method utilized.

Four financial institutions in the North-Eastern United States, as outlined in table 1, were studied. The banks are located in the same demographic region and have their core competencies in retail banking. In the view of the researchers, these banks represent mature providers of Internet banking.

Given that the research objective requires an understanding of a rapidly changing phenomenon, the researchers considered the semi structured interview technique as the most suitable method for information gathering. By interviewing individuals able to offer insights from different perspectives, the researchers acquired a clear understanding and a consistent view of Internet banking in these institutions. All interviewees were at a senior organisational level, and had significant experience of the banking sector and Internet banking.

**Table 1. Profile of Field Study Participants**

<b>Company</b>	<b>Assets (\$'s)</b>
Citizens Bank www.citizensbank.com	29 Billion
FleetBoston www.fleet.com	185 Billion
Century Bank www.century-bank.com	925 Million
Cambridge Bancorp www.cambridgetrust.com	1 Billion

## Research Findings

The Internet banking sites of the institutions studied have evolved to provide a better service and more functionality for all their customers. The four phases documented by Deupree and Berini JR (1998) in relation to banks' Web site adoption appear to be accurate. Cambridge is at phase two (the transactional phase) as customers can perform basic banking functions. However, larger banks such as Fleet are evolving towards stage four, "one to one banking." Initially, all the banks studied designed a Web site that was mainly focussed on their retail customers. However, with the evolution of the Internet channel, banks are now evolving their Web sites to focus more on small business and commercial customers. Many of the bankers interviewed believe that the greatest possibility for growth in the medium term is in the area of small business/commercial banking. This will require more advanced Internet banking operations in order to deliver sophisticated products that will be integrated to meet the specific requirements of businesses.

### *Internet Banking Strategy*

The Internet banking strategies of the organisations studied can be categorised as either defensive (c.f. Gervino, 2000) or offensive (c.f. Pariser & Zimmerman, 1996). All the banks (except Century Bank) initially utilized Internet banking as part of a defensive strategy in order to retain customers. FleetBoston believe it is as yet unproven whether or not Internet banking retains customers. FleetBoston's goal is to put a barrier around customers, which would be most difficult for other financial institutions to penetrate, thus acting as a retention tool for customers. Coincidentally, Citizen's believe that online banking customers are 50% less likely to move to another financial institution than non-online banking customers. Century bank is the exception to the defensive rule. Century's goal is to develop an Internet banking product to attract new customers. Century believe that with the consolidation taking place in the industry, a lot of displaced and unhappy people exist and they hope to capitalize on this with Internet banking being at the forefront of their acquisition policy. It is the authors opinion that their offensive strategy could be explained by the fact that they entered the Internet banking market at a latter stage than the other banks involved in the study, at a time when disintermediation of financials services roles was truly coming into effect aided by such legislation as The Gramm-Leech-Bliley Act 1999.

We classify customers who are online into 2 distinct categories, namely online and active online. For example, Citizen's Internet strategy is to get customers who want to utilize the service. At the time the information was gathered, Citizens had about 26,000 customers using the online banking product. Summing up their strategy, Citizen's Director of E-Commerce stated that it is better to have fewer customers that actually utilize the service rather than a large number of online customers that do not actively use the service. Citizens' goal is not to get 500,000 online customers. Their goal is to get 200,000 active customers.

### *Banks Approaches to Evaluating Their Internet Banking Offering*

Initially, all the banks studied, viewed the Internet banking platform as a cost of conducting business. The banks looked at the initial cost of setting up the site as a marketing expense. This would concur with phase one in Deupree & Berini jr's (1998) model. However, this has now evolved and a number of banks are at different stages of evolution in relation to how they evaluate their Internet banking offering. An example of a bank, which is at an early stage of this evolution, is Century bank who record the number of hits their website receives on a daily basis and also evaluate their Internet facility by interacting with their customers on a regular basis. However, Citizens approach to evaluating their offering has evolved further. Citizens view the number of active

online customers as a key entity in evaluating their Internet banking offering. Citizens have now evolved to a situation whereby they are viewing the Internet platform in financial terms. When evaluated in relation to such criteria, their Internet banking offering is quite impressive. Citizen's Director of E-Commerce is currently in the situation where he is able to say, "*We're doing business here*". For instance, Citizens are taking equity applications online and taking about \$2 million of booked equity which represents about eight branches worth of activity. Citizens envisage a scenario whereby their Internet banking offering will be managed as its own branch.

While other research (Daniel, 1999; Proctor, 2000; Robinson, 2000) focuses on online banking numbers and penetration levels, we argue that such figures can be misleading. We have found that inactive online customers cost the banks money as the bank still needs to support inactive customers. The banks believe that if you study those people that are online but inactive, they look a lot more like regular branch customers than online customers. For example, Citizens' online banking customers have deposit relationships with the bank that are statistically higher than non-online banking customers. They have more products per household than non-online banking customers. They are more profitable to the bank in that they use more products/services than non-online customers. Citizens believe that when you get a large number of customers who are not active, they dilute the overall value of that channel.

### ***Industry Consolidation and the Threat Posed by Virtual Entities***

All of the respondents in the study recognized that consolidation is taking place in the financial services industry. Currently, they believe that banks enjoy a psychological advantage in relation to banking, as many consumers do not recognize other financial services companies as alternatives to the banks. Century maintain that FDIC<sup>1</sup> insurance is a major reason for this and that there appears to be more trust in banks than in the unregulated industries. However, this is set to change with recent legislation enabling other financial services companies to become banks competitors. Century believe that banks really have to pay attention to the Schwab's of the world providing some real competition. "*Why should I bank at a bank when I could bank at Charles Schwab?*" was the reasoning offered by Cambridge's Deposit Services Manager.

It is the perception of bank personnel that regulatory issues are set to play a key role in how successful competitors will be in competing with the banks for business which is traditionally the domain of the banks. The banks view the threat from 2 distinct sources, namely financial services companies and purely virtual entities (those that exist purely on the net). The perception is that the financial services companies pose a greater long term threat as they are used to dealing with regulators and will purchase purely virtual organizations in order to gain a foothold in that market. However, in the immediate term, entities such as [www.capital.com](http://www.capital.com) and [www.bankrate.com](http://www.bankrate.com) pose a very real threat to banks business. It is the belief of bankers that those virtual organizations will eventually be bought up by financial services companies with a physical presence and will be utilized by these firms as an outlet to compete solely on the Internet. It is also perceived by bankers that these institutions' competitive advantage comes from pricing strategy and convenience. They believe that once these advantages are eroded, virtual entities that operate solely on the Internet may find it difficult to survive. The banks believe that as the Internet becomes ubiquitous and the novelty wears off, all the dot.coms will eventually be pushed from a market cap based on potential earnings to a market cap based on real earnings. These institutions will be propelled into a real earnings game, which will impact their pricing strategy. As a result, bankers perceive further consolidation and an evolution to financial services companies (companies involved in insurance, stock trading, brokerage, etc.) as banks true competitors.

## **Conclusion**

Internet banking is mainly perceived by the 'bricks and mortar' banks as being a customer retention tool. Recent legislation has enabled non traditional banking companies to enter the banking market, thus increasing the competition for banks.

Banks perceive the threat to their business from two distinct sources, traditional financial services companies and virtual entities. Of the two, the greater perceived threat is from traditional financial services companies as these firms have a physical presence, are used to dealing with regulatory issues, and perceive the Internet as just another platform with which to interact with their customers. The banks perception is that once a virtual organisations competitive advantage, largely based on pricing and convenience are eroded, they are not very different from traditional banks. It is bankers perception that many of the virtual organisations will eventually be bought out by financial services companies.

---

<sup>1</sup>The FDIC provides \$100,000 in insurance for deposits at banks. The FDIC examines and supervises nearly 6,000 banks. Congress created the FDIC in 1933 to maintain public confidence in the bank system.

The banks included in this field study are at different stages of evolution. It is nevertheless evident that banks are beginning to see Internet banking as an important competitive tool in the battle for customer accounts. Internet banking may lead to some cost reductions, but the real benefit may be that banks can utilise the mountain of information generated by customer activity online to streamline their offerings. This may place them in a stronger position when competing with other organisations entering the banking sector. However, this means that stage four of Deupree and Berini's (1998) model will be an entry requirement.

## References

- Bharadwaj, Anandhi. "A Resource Based Perspective on Information Technology Capability and Firm Performance: An Empirical Investigation"; MIS Quarterly, Vol. 24 No 1, March 2000, pp 169 – 196
- Booz-Allen-Hamilton. "Internet Banking in Europe: A Survey of Current Use and Future Prospects", London, U.K. 1997
- Buckley, J; Buckley, M and Hung-Fu, C. Research Methodology and Business Decisions, National Association of Accountants, New York, 1976
- Cha, Ariana; Goodman, Peter. "AOL Time Warner Allay Fears"; Washington Post, March 1<sup>st</sup>, 2000
- Cronin. "The Internet Strategy Handbook: Lessons from the new frontier of business"; Harvard Business School Press, 1997
- Daniel, Elizabeth. "Provision of Electronic Banking in the U.K and the Republic of Ireland"; International Journal of Bank marketing, 17/2, 1999, PP 72-82
- Daniel & Storey. "Online Banking: Strategic and Management Challenges"; Long Range Planning, Vol. 30, No 6, 1997, PP 890-8
- Deupree, James; Berini JR, Robert M. 1999 Guide to Retail Banking on the Internet, A Handbook to Strategies, Tactics and Approaches; Faulkner & Gray, New York; ISBN: 1-57987-092-9, 1998
- Gervino, Joan. "Logging in to Internet banking"; Bank-Marketing, January 2000
- Graham G. "The Armchair Banker"; Financial Times, 19 February 1997
- Greenland. "Rationalization and Restructuring in the Financial services Sector"; International Journal of Retail and Distribution Management, Vol. 22, No 6, 1994, pp21-8
- Johnson B, Ott J, Stephenson J, Weberg P. "Banking on Multimedia"; The McKinsey Quarterly, 94-106, 1995
- Kaplan, R. The role of empirical research in management accounting, Accounting, Organisations and Society, 11,4, 1986, pp. 429-452
- Marshall, C, Rossman, B.G. Designing Qualitative Research, Sage Publications Inc, Newbury Park, Ca, 1989
- McChesney. "Banking in Cyberspace: An Investment in Itself"; IEEE Spectrum, February, 1997
- McGrath, J. Toward a theory of method for research on organizations. In Mowdray, R and Steers, R (eds) Research in Organizations: Issues and Controversies, Goodyear Publishing Inc, California, 4-21, 1979
- Mols, Niels Peter. "The Internet and the Banks Strategic Distribution Channel decisions", Internet Research: Electronic Networking Applications & Policy, Vol. 8; No. 4, 1998
- Nolan, R "Note on estimating the value of the IT asset", Harvard Business School Note #9-195-197, 1994
- Office of the Comptroller of the Currency (OCC). Internet Banking Comptroller's Handbook, October 1999; www.occ.treas.gov.
- Pariser, Steve & Zimmerman David. "An Internet Banking Executive Briefing Paper"; Unisys Information Services, 1996
- Proctor, Craig. "Don't call us"; Banker, March; volume 150 no 889, 2000
- Robinson, Terri. "Internet Banking: Still not a perfect Marriage"; InformationWeek, April 17<sup>th</sup>, 2000
- Sackenheim, Greg. "Internet Banking"; www.bankinfo.com, 1999
- Toraskar, K. How managerial users evaluate their decision support: a grounded theory approach, in Nissen, H, Klein, H and Hirschheim, R (eds) Information Systems Research: Contemporary Approaches and Emergent Traditions, Elsevier Publishers, North Holland, pp 235-266, 1991
- Treanor, J. "How Virtual Bankers are close to becoming a reality"; The Independent, 21 February 1997, pp22
- Van Horn, R Empirical studies of management information systems. DataBase, Winter 1973 pp. 172-180
- Yerkes, Leisha. "The New wave: Internet-Based Cash Management"; www.bankinfo.com, 1999.